DECISION AND FINDING OF NO SIGNIFICANT IMPACT

ENVIRONMENTAL ASSESSMENT: AN INTEGRATED WILDLIFE DAMAGE MANAGEMENT APPROACH FOR THE MANAGEMENT OF WHITE-TAILED DEER DAMAGE IN THE STATE OF NEW YORK

United States Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services

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I. INTRODUCTION

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program prepared an Environmental Assessment (EA) to analyze the potential environmental and social effects of managing damage to property, agricultural commodities, natural resources, and threats to human safety caused by white-tailed deer (*Odocoileus virginianus*) in New York (USDA 2003)¹. The EA documents the need for white-tailed deer damage management and assesses potential impacts on the human environment of five alternatives to address that need. WS' proposed action in the EA implements an integrated wildlife damage management program in New York to fully address the need for deer damage management while minimizing impacts to the human environment.

The pre-decisional EA² was made available to the public for review and comment during a 30-day public comment period by a legal notice published on August 5, 2002 in *Newsday, The Post-Standard, Buffalo News*, and *The Times Union*. A letter of availability for the pre-decisional EA was also mailed directly to agencies, organizations, and individuals with probable interest in the proposed program. WS received one comment letter during the public involvement process. Comments from the public involvement process were reviewed for substantive issues and alternatives which were considered in developing the Decision for the EA.

After consideration of the analysis contained in the EA and review of public comments, a Decision and Finding of No Significant Impact (FONSI) for the EA was issued on February 6, 2003. The Decision and FONSI selected the proposed action which implemented an integrated damage management program in New York using multiple methods to adequately address the need to manage damage caused by deer.

II. PURPOSE

This new Decision and summary report will analyze WS' deer damage management activities in New York since the 2003 Decision/FONSI was signed for the EA to: 1) facilitate planning and interagency coordination, 2) streamline program management, 3) ensure WS' activities remain within the scope of analyses contained in the EA, and 4) clearly communicate to the public the analysis of individual and

¹ Copies of the EA are available for review from the State Director, USDA/APHIS/WS, 1930 Route 9, Castleton, New York 12033 or by visiting the APHIS website at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml.

²After the development of the pre-decisional EA by WS and consulting agencies and after public involvement in identifying new issues and alternatives, WS issues a Decision on the EA. Based on the analyses in the pre-decisional EA after public involvement, a decision is made to either publish a Notice of Intent to prepare an Environmental Impact Statement or to publish a public notice of a Finding of No Significant Impact for the EA in accordance with the NEPA and the Council of Environmental Quality regulations.

cumulative impacts of the proposed action since 2003. This new Decision/FONSI ensures WS' actions comply with NEPA, with the Council on Environmental Quality (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All damage management activities, including disposal requirements, are conducted by WS consistent with: 1) WS Directives, 2) the Endangered Species Act of 1973, 3) Executive Order (EO) 12898³, 4) EO 13045⁴, and 4) federal, state, and local laws, regulations, and policies.

III. PUBLIC INVOLVEMENT

This summary report and new Decision along with the EA and the 2003 Decision/FONSI will be made available for public review and comment through the publication of a legal notice announcing a minimum of a 30-day comment period. The legal notice will be published in *The Times Union* and posted on the APHIS website located at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml according to WS' public notification requirements (72 FR 13237-13238). This new Decision will also be directly mailed to agencies, organizations, and individuals with probable interest in the proposed program. Comments received during the public involvement process will be fully considered for new substantive issues and alternatives. Unless new substantive issues and/or new alternatives are brought to WS' attention, this new Decision will take effect upon the close of the comment period.

IV. RELATIONSHIP OF THIS DOCUMENT TO OTHER ENVIRONMENTAL DOCUMENTS

WS' Programmatic Final Environmental Impact Statement: WS has developed a programmatic Final Environmental Impact Statement (FEIS)⁵ that addresses the need for wildlife damage management in the United States (USDA 1997). The FEIS contains detailed discussions of potential impacts to the human environment from wildlife damage management methods used by WS. Pertinent information available in the FEIS has been incorporated by reference into the EA and this Decision.

New York State Deer Management Plan: The New York State Department of Environmental Conservation (NYSDEC) does not currently have a formal deer management plan, but there are some elements of a management program in place. The Citizen Task Force on Deer is comprised of representatives from fifteen Wildlife Management Units (WMUs) throughout the State. The task force is made up of various stakeholders that are affected by deer and include farmers, hunters, foresters, conservationists, motorists, tourism industry representatives, landowners, and small business owners. Each person in a task force contacts people from their stakeholder group in order to gather opinions about deer populations within their WMU. These opinions are outlined at a meeting and are worked into a consensus recommendation for a deer population level for that WMU which are presented to the NYSDEC.

The NYSDEC also promotes the Deer Management Assistance Program (DMAP), which helps landowners and resource managers implement site specific deer management on their lands. The DMAP permits are valid during the open deer hunting season and can only be used by licensed hunters. Only antlerless deer may be taken with these permits. To be eligible for the DMAP, applicants must own or control land where deer damage has been documented (e.g., agricultural producers, municipalities, natural resources managers).

³ Executive Order 12898 promotes the fair treatment of people of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

⁴ Executive Order 13045 ensures the protection of children from environmental health and safety risks since children may suffer disproportionately from those risks.

⁵Copies of WS' programmatic FEIS are available from USDA/APHIS/WS-Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD 20737-1234.

V. MONITORING

The WS program in New York annually reviews program activities to determine impacts on issues identified and to ensure that program activities are within the scope of analysis contained in the EA. The annual monitoring reports document WS' activities while discussing any new information that becomes available since the completion of the EA and the last monitoring report. If WS' activities, as identified in the annual monitoring reports, are outside the scope of the analyses in the EA or if new issues are identified from available information, further analysis would occur and the EA would be supplemented to the degree as identified by those processes pursuant to NEPA or a notice of intent to prepare an Environmental Impact Statement (EIS) would occur.

This summary report and new Decision will evaluate WS' activities to resolve and prevent damage caused by deer in the State under the proposed action described in the EA since the 2003 Decision and FONSI were signed. WS will continue to coordinate activities to alleviate or prevent deer damage with the NYSDEC to ensure WS' activities are considered as part of the management objectives for deer in the State.

VI. AFFECTED ENVIRONMENT

Upon request for assistance, deer damage management could be conducted on private, federal, state, tribal, county, and municipal lands in New York to resolve damage or threats to agricultural and natural resources, property, roads, bridges, railroads, and public health and safety. The affected environment includes, but is not necessarily limited to, areas in and around agricultural areas, buildings and parks, industrial sites, urban/suburban woodlots, airports, military bases, and rural areas wherever deer are found to be causing damage to resources or posing threats to human safety.

WS has reviewed the affected environment during evaluations of programs activities under the proposed action through annual monitoring reports and this summary report. The affected environment has not changed since the implementation of the proposed action and continues to be as addressed in the EA.

VII. WS' ACTIVITIES TO MANAGE DAMAGE CAUSED BY DEER IN NEW YORK

WS continued to provide both technical assistance and direct management activities to cooperators requesting assistance with damage caused by deer in New York from the federal fiscal year (FY)⁶ 2003 through FY 2008. Technical assistance provides those interested with information and recommendations on preventing wildlife damage and effective methods for resolving damage which are legally available for use. This information can then be employed by those persons experiencing wildlife damage to effectively resolve damage without WS' direct involvement.

Operational assistance occurs when WS is directly involved with employing methods to resolve, alleviate, or reduce threats associated with deer. As directed by the selected alternative, WS applies multiple methods as part of an integrated damage management program to resolve requests for assistance using the WS Decision Model (Slate et al. 1992, USDA 1997, USDA 2003). WS' technical assistance and direct operational programs are discussed in detail in the EA (USDA 2003) along with WS' programmatic FEIS (USDA 1997). No deer damage management activities were conducted by WS during FY 2003 in New York.

In FY 2004, WS received one request to resolve damage occurring to natural resources in New York and four requests for assistance to reduce threats to human safety, primarily at airports. Damage to natural

⁶The federal fiscal year begins on October 1 and ends on September 30 the following year.

resources occurred from over-browsing of vegetation that can occur in areas with high deer densities. Threats to human safety and property associated with deer at airports occur from the risks associated with aircraft striking deer which can cause extensive damage to aircraft and threaten passenger safety. To resolve requests for assistance, WS employed lethal methods to take 20 deer in FY 2004 by shooting.

Similar to FY 2004, WS received requests for assistance to resolve or prevent deer damage to natural resources and to reduce threats to human safety in FY 2005. WS received three requests for assistance to manage deer damage occurring to natural resources in FY 2005. WS also received four requests for assistance to reduce threats to human safety, primarily from threats associated with deer being struck by aircraft. WS employed lethal methods to take 247 deer in FY 2005 to resolve requests for assistance.

White-tailed deer damage management activities were conducted at one location during FY 2006 to resolve damage occurring to natural resources. This project involved the depopulation of deer confined inside an enclosure at a farm that had purchased the deer from a location that tested positive for Chronic Wasting Disease⁷. Concerns were raised that the disease could be transmitted to free-ranging deer outside the enclosure. WS used firearms to remove 13 deer from the enclosure. WS also conducted deer damage management activities to reduce threats to human safety at an airport in FY 2006. Deer were observed frequently crossing airport runways which posed threats to aircraft and human safety. WS used firearms to remove three deer at the airport to reduce threats of aircraft strikes.

In FY 2007, WS received three requests for assistance to reduce threats of aircraft striking deer at airports in New York. To resolve those requests for assistance, WS employed firearms to remove six deer that were identified as posing a threat to aircraft at three different locations. WS continued to receive requests for assistance to reduce threats from aircraft striking deer at two airports in New York during FY 2008. WS used firearms to remove three deer that were identified as posing a threat to aircraft in FY 2008.

VIII. MAJOR ISSUES

Issues are concerns raised regarding potential environmental problems that might occur from a proposed action. Such issues must be considered in the NEPA decision process. Issues relating to the reduction of wildlife damage were raised during the scoping process for WS' programmatic FEIS (USDA 1997) and were considered in the preparation of the EA. Issues related to managing damage associated with deer damage management in New York were developed by WS in consultation with the USFWS, the NYSDEC, and the New York Department of Agriculture and Markets.

The EA fully describes the issues identified during the scoping process for WS' programmatic FEIS and during the development of the EA. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25):

Issue 1 - Effects on White-tailed deer Populations

A common issue when addressing damage caused by wildlife are the potential impacts of management actions on the population of target species. Methods used to resolve damage can involve altering the behavior of target species and may require the use of lethal methods when appropriate. Under the proposed action, WS provides technical and direct damage assistance using methods described in Appendix D of the EA in an integrated approach in which all or a combination of methods may be employed to resolve a request for assistance.

Of primary concern is the magnitude of take on a species' population from the use of lethal methods.

⁷For more information on Chronic Wasting Disease and the threats associated with the transmission of the disease to free-ranging deer populations from captive animals, see the discussion in Chapter 1 of the EA (USDA 2003).

Lethal methods are employed to remove an individual deer or those deer responsible for causing damage and only after requests for such assistance are received by WS. The use of lethal methods would therefore result in local population reductions in the area where damage or threats were occurring. The number of target species removed from the population using lethal methods under the proposed action would be dependent on the number of requests for assistance received, the number of deer involved with the associated damage or threat, and the efficacy of methods employed. The EA evaluated a lethal take of up to 1,000 deer annually by WS in New York to alleviate damage and threats.

The analysis for magnitude of impact generally follows the process described in Chapter 4 of WS' programmatic FEIS (USDA 1997). Magnitude is described in WS' programmatic FEIS as "...a measure of the number of animals killed in relation to their abundance." Magnitude may be determined either quantitatively or qualitatively. Quantitative determinations are based on population estimates, allowable harvest levels, and actual harvest data. Qualitative determinations are based on population trends and harvest data when available. Generally, WS only conducts damage management on species whose population densities are high and only after they have caused damage.

When compared to other land mammals in North America, the white-tailed deer currently occupies the largest geographic range of any other mammal (Pagel et al. 1991). Rural areas containing a matrix of forest and agricultural crops can contain the highest deer densities in a county (Roseberry and Woolf 1998). Biologists and resource managers in New York State have been challenged with managing escalating populations of deer in suburban and natural areas. As deer populations increase, there is an increasing occurrence of damage from white-tail deer to agricultural crops (DeVault et al. 2007), increasing incidences of Lyme disease (Fernandez 2008), a rise in deer-vehicle collisions (Conover et al. 1995), and a disruption in forest health, regeneration, and forest dependent species (Tilghman 1989).

The population of deer in New York has ranged from an estimated 1 million deer in 2003 to the current population estimated at 860,000 deer in the State (see Table 1). The NYSDEC, with management authority over resident wildlife species including deer, manages deer populations in the State by allowing deer to be harvested during a regulated harvest season. In 2003, an estimated 253,000 deer were harvested during the regulated season in New York compared with 219,000 deer harvested during the 2007 harvest season. In addition to take of deer during the regulated season, the NYSDEC also issues depredation permits for the take of deer that are causing damage to agricultural and other resources. As shown in Table 1, the take of deer under depredation permits has ranged from 2,735 deer taken in 2006 to a high of 4,866 deer in 2004. Deer mortality in New York from other sources (e.g., vehicle collisions, disease, predation) is currently unknown.

Table 1 – Comparison of WS' take of deer with take from other known sources in New York.

	Year					
	2003	2004	2005	2006	2007	2008
Estimated Deer Population ¹	1,000,000	1,000,000	780,000	780,000	840,000	860,000
Take during Harvest Season	253,000	208,000	180,214	189,000	219,000	n/a ³
Take by WS ²	0	20	247	3	6	3
Take under Nuisance Permits	4,000	4,866	4,428	2,735	3,708	n/a
Total Deer Take	257,000	212,886	184,889	191,738	222,714	n/a
WS % Take of Total	0	0.009%	0.13%	0.002%	0.003%	n/a
WS % Take of Population	0	0.002%	0.03%	0.0004%	0.0007%	0.0003%

Deer population estimate provided by the NYSDEC (J. Hurst, NYSDEC pers. comm. 2008)

²Take by WS is reported by FY

³n/a= data is currently unavailable

WS' programmatic FEIS determined using qualitative information (population trend indicators and harvest data) that if WS' deer kill is less than or equal to 33% of the total harvest, the magnitude is considered low (USDA 1997). The highest level of take by WS occurred in FY 2005 when 247 deer were taken to alleviate damage. WS' highest level of take that occurred in FY 2005 was 0.13% of the total known take of deer in the State. When compared to the 2005 deer population estimate, WS' take in FY 2005 represented 0.03% of the estimated population. The cumulative impact on the deer population by WS is negligible and therefore considered to be of extremely low magnitude.

Program activities and their potential impacts on white-tailed deer populations have not changed from those analyzed in the EA. The effects of WS' white-tailed deer damage management activities on this issue are expected to remain insignificant.

Issue 2 - Effects on Plants and other Wildlife Species, including T&E Species

The issue of non-target species effects, including effects on threatened and endangered species arises from the use of non-lethal and lethal methods identified in the alternatives. The use of non-lethal and lethal methods has the potential to inadvertently disperse, capture, or kill non-target wildlife. WS' minimization measures and SOPs are designed to reduce the effects of damage management activities on non-target species' populations. To reduce the risks of adverse affects to non-target wildlife, WS selects damage management methods that are as target-selective as possible or applies such methods in ways that reduces the likelihood of capturing non-target species. Before initiating management activities, WS also selects locations which are extensively used by the target species and employs baits or lures which are preferred by those species. Despite WS' best efforts to minimize non-target take during program activities, the potential for adverse affects to non-targets exists when applying both non-lethal and lethal methods to manage damage or reduce threats to safety.

While every precaution is taken to safeguard against taking non-targets during operational use of methods and techniques for resolving damage and reducing threats caused by wildlife, the use of such methods can result in the incidental take of unintended species. Those occurrences are minimal and should not affect the overall populations of any species. Since FY 2003, no non-target wildlife has been taken by WS during deer damage management activities in New York. No adverse affects to non-targets were observed or reported to WS during deer damage management activities. WS will continue to monitor annually the take of non-target species to ensure program activities or methodologies used in deer damage management do not adversely impact non-targets. WS' activities are not likely to adversely affect the viability of any wildlife populations from damage management activities.

Controlling deer populations in most cases would have a beneficial effect to plant species. High densities of white-tailed deer have a detrimental effect on forest regeneration and species composition (Tilghman 1989). Loss of seedlings to browsing deer can lead to forests composed of less desirable tree species, resulting in a decrease in the diversity of wildlife foods available (Tilghman 1989), and a reduction in breeding bird habitat (DeCalesta 1994). High densities of white-tailed deer reduced intermediate canopy nesting birds by reducing the height of woody vegetation in a mangaged forest in Pennsylvania (DeCalesta 1994). McShea and Rappole (2000) found that a reduction in deer density increased the diversity and density of understory vegetation and led to a corresponding increase in bird numbers.

Deer can also damage property such as landscaping and ornamental plantings. As development expands into previously rural areas, deer habitat may actually be enhanced because fertilized lawns, gardens, and landscape plants serve as high quality sources of food (Swihart et al. 1995). Two-thirds of nursery producers and landscape firms and slightly less than one-fourth of homeowners reported damage by deer in New York during 1989 (Sayre et al. 1992). Furthermore, deer are prolific and adaptable, characteristics which allow them to exploit and prosper in most suitable habitat near urban areas,

including residential areas (Jones and Witham 1995). Although damage to landscaping and ornamental plants has not been quantified, deer can cause severe and very costly property damage to homeowners and in parks.

WS' activities were selective for target white-tailed deer from FY 2003 through FY 2008. No threatened or endangered (T&E) species were taken or adversely affected by WS' actions. A review of T&E species listed by the U.S. Fish and Wildlife Service showed that additional listings of T&E species in New York have occurred since the completion of the EA in 2003. Since the completion of the EA, the northeastern bulrush (*Scirpus ancistrochaetus*), American chasffseed (*Schwalbea americana*), eastern prairie fringed orchid (*platanthera leucophaea*), pink swamp (*Helonias bullata*), and small whorled pogonia (*Isotria medeoloides*) have been federally listed in New York. However, those species of plants are not currently known to occur in the State. Based on the likely absence of those species from the State and since WS' deer damage management activities do not cause habitat destruction or modification, WS' activities to resolve damage caused by deer in New York will have no effect on those T&E species listed after the development of the EA. Program activities and methods conducted during the reporting period have not changed from those analyzed in the EA. Thus, WS' determination that deer damage management activities conducted within the scope of the proposed action was not likely to adversely affect T&E species in New York is still valid and appropriate for those T&E species addressed in the EA (USDA 2003).

Issue 3 - Effects on Human Health and Safety

The EA concluded that the effects of WS' deer damage management activities when conducted within the scope analyzed would have no adverse impact on human safety or pet safety. WS' implementation of the proposed action from FY 2003 through FY 2008 did not result in any adverse impacts to human or pet safety. The methods available for use to manage damage caused by deer in New York remain as addressed in the EA. Therefore, the potential impacts of program activities on human health and safety have not changed from those analyzed in the EA. Impacts of the program on this issue are expected to remain insignificant.

In addition to the risks associated with methods used to resolve or prevent deer damage, concerns also arise from not conducting activities to resolve requests for assistance that involve human safety. There are numerous health risks associated with deer to both people and pets. Lyme disease is the most common zoonosis involving deer and is caused by the spirochete *Borrelia burgdorferi*. Research has shown a correlation between infected ticks, deer numbers, and Lyme disease cases (Magnarelli et al. 1984, Deblinger et al. 1993). There were 5,565 cases of Lyme disease reported in New York State during 2005 which is an increase of 464 cases from 2004 (New York State Department of Health 2005). Deer are an important reservoir for Lyme disease and are the primary host for the adult deer tick (Conover 1997).

Companion animals can become infected with Lyme disease and develop subclinical infections. In the northeast, infection rates can be as high as 85.2% in dogs and 47% in cats. Lyme disease in cats is currently poorly understood and little is known about disease manifestations (Companion Animal Parasite Council 2008). Chronic Lyme disease in dogs can lead to acute progressive renal failure and death.

In 1986, another serious tick-borne zoonosis, human ehrlichiosis, was discovered in the United States (McQuiston et al. 1999). Two distinct forms of the illness may affect humans: human monocytic ehrlichiosis (HME) and human granulocytic ehrlichiosis (HGE) (Lockhart et al. 1997, McQuiston et al. 1999). The bacterial agents that cause ehrlichiosis are transmitted to humans by infected ticks which acquire the agents from feeding on infected animal reservoirs (McQuiston et al. 1999). Ehrlichiosis in humans may result in fever, headache, myalgia, nausea, and occasionally death (Little et al. 1998,

McQuiston et al. 1999). HME is the type of ehrlichiosis predominantly found in the southeastern, south-central, and mid-Atlantic United States. White-tailed deer are major hosts for *Amblyomma americanum*, the tick which transmits HME, and deer have been identified as a reservoir for HME (Lockhart et al. 1997, Little et al. 1998).

Deer-vehicle collisions are a serious concern nationwide because of losses to property and the potential for human injury or even death (Conover et al. 1995, Romin and Bissonette 1996, Conover 1997). Conover et al. (1995) estimated that 1.5 million deer-vehicle collisions occur each year in the United States and that the average cost to repair the vehicle after a collision with a deer was \$1,500. Conover et al. (1995) thus estimated that the total damage to vehicles in the United States each year from deer-vehicle collisions is greater than \$1 billion. Additionally, Conover et al. (1995) estimated that deer-vehicle collisions in the United States result in 29,000 injuries and 211 human fatalities annually. Nationwide Insurance (1993) estimated that 120 people are killed annually in animal-vehicle accidents in the United States.

Wildlife collisions with aircraft are a serious economic and safety problem (Dolbeer et al. 2000). Cleary et al. (1999) estimated that between 1990 and 1998 wildlife strikes cost the U.S. civil aviation industry a minimum of 92,233 hours/year of aircraft down time, \$50.6 million/year in direct monetary losses, and \$26.59 million/year in associated costs. In a recent study which ranked the hazards to aviation for wildlife species commonly involved in aircraft strikes, deer were ranked as the most hazardous species group (Dolbeer et al. 2000). This study found that 87% of reported deer-aircraft collisions resulted in damage. This was the highest percent of reported damage occurrence of any species studied. Also, 53% of deer-aircraft strike reports noted an effect on the flight (e.g., aborted take-off, engine shutdown, precautionary landing) (Dolbeer et al. 2000).

The EA concluded that effects on this issue would be insignificant. Impacts of the program on this issue are expected to remain insignificant.

Issue 4 - Humaneness of Methods to be Used

As discussed in the EA, humaneness, in part, appears to be a person's perception of harm or pain inflicted on an animal. People may perceive the humaneness of an action differently. The challenge in coping with this issue is how to achieve the least amount of animal suffering within the constraints imposed by current technology.

Some individuals believe any use of lethal methods to resolve damage associated with wildlife is inhumane because the resulting fate is the death of the animal. Others believe that certain lethal methods can lead to a humane death. Others believe most non-lethal methods of capturing wildlife to be humane because the animal is generally unharmed and alive. Still others believe that any disruption in the behavior of wildlife is inhumane. With the multitude of attitudes on the meaning of humaneness, the analyses must consider the most effective way to address damage and threats caused by wildlife in a humane manner. WS is challenged with conducting activities and employing methods that are perceived to be humane while assisting those persons requesting assistance to manage damage and threats associated with wildlife. The goal of WS is to use methods as humanely as possible to effectively resolve requests for assistance to reduce damage and threats to human safety. WS continues to evaluate methods and activities to minimize the potential pain and suffering of those methods addressed when attempting to resolve requests for assistance.

As mentioned previously, some methods have been stereotyped as "humane" or "inhumane". However, many "humane" methods can be inhumane if not used appropriately. For example, a cage trap is generally considered by most members of the public as "humane" since an animal is captured alive. Yet,

without proper care, live-captured wildlife in a cage trap can be treated inhumanely if not attended to appropriately.

Therefore, WS' mission is to effectively address requests for assistance using methods in the most humane way possible that minimizes the stress and pain of the animal. WS' personnel are experienced and professional in their use of management methods. When employing methods to resolve damage to resources or threats to human safety, methods are applied as humanely as possible. Methods used in deer management activities in New York since the completion of the EA and their potential impacts on humaneness and animal welfare have not changed from those analyzed in the EA. No new methods were identified in this report that would alter the analysis contained in the EA on the issue of method humaneness. Therefore, the analyses of the humaneness of methods used by WS to manage damage and threats caused by deer have not changed from those analyzed in the EA.

Issue 5 - Effects on Aesthetic Values

The human attraction to animals has been well documented throughout history and started when humans began domesticating animals. There is evidence that dogs and cats were domesticated around 3,000 B.C. (History World 2007). The American public is no exception and today a large percentage of households have pets. However, some people may consider individual wild animals as "pets" or exhibit affection toward these animals, especially people who enjoy coming in contact with wildlife. Therefore, the public reaction is variable and mixed to wildlife damage management because there are numerous philosophical, aesthetic, and personal attitudes, values, and opinions about the best ways to reduce conflicts/problems between humans and wildlife.

There is some concern that the proposed action or the alternatives would result in the loss of aesthetic benefits to the public, resource owners, or neighboring residents. Wildlife generally is regarded as providing economic, recreational, and aesthetic benefits (Decker and Goff 1987), and the mere knowledge that wildlife exists is a positive benefit to many people. Aesthetics is the philosophy dealing with the nature of beauty, or the appreciation of beauty. Therefore, aesthetics is truly subjective in nature, dependent on what an observer regards as beautiful.

The WS program in New York only conducts wildlife damage management at the request of the affected home/property owner or resource manager. Program activities and methods and their potential impacts on aesthetics have not changed from those analyzed in the EA. As discussed under Issue 1, when compared to the estimated deer population in New York and when compared to the total known deer taken, WS' take has been minimal with the magnitude of take being low. Deer populations remain high and deer are readily available for viewing if a reasonable effort is made to locate deer in New York. WS' take of deer in New York has not adversely affected the aesthetic value of deer.

Issue 6 - Effects on Regulated White-tailed Deer Hunting

The EA concluded that the effects of WS' deer damage management activities on this issue would be insignificant. As noted in Table 1, WS' annual take of deer has not exceeded 0.03% of the estimated deer population in New York in any given year nor has WS' take exceeded 0.13% of the deer harvested in New York from FY 2003 through FY 2008. WS' activities are coordinated with the NYSDEC to ensure WS' annual take does not exceed a level where a decline in the deer population would occur due to cumulative impacts from harvest, damage management activities, and other sources of mortality. WS' limited take of deer in New York is not occurring at a magnitude that would adversely affect the ability of those interested to harvest deer in the State. Program activities and their potential impacts on statewide deer populations have not changed from those analyzed in the EA. The effects on this issue are expected to remain insignificant.

IX. ISSUES NOT CONSIDERED IN DETAIL

WS has reviewed the issues not considered in detail as described in the EA and has determined that the analysis provided in the EA has not changed and is still appropriate. Effects on those issues continue to be insignificant.

X. ALTERNATIVES ANALYZED IN DETAIL

The EA contains a detailed description and discussion of the alternatives and the effects of the alternatives on the issues identified (USDA 2003). Appendix D of the EA provides a description of the methods that could be used or recommended by WS under each of the alternatives. WS has reviewed the alternatives analyzed and determined the analyses in the EA are still appropriate for those alternatives.

The following five alternatives were developed to respond to the issues:

Alternative 1: No Deer Damage Management by WS

Alternative 2: Technical Assistance Only

Alternative 3: Lethal Deer Damage Management only by WS

Alternative 4: Non-lethal Deer Damage Management only by WS

Alternative 5: Integrated Deer Damage Management Program: No Action (Preferred Alternative)

XI. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Two additional alternatives were also considered to address the issues but were not analyzed in detail with the rationale discussed in the EA (USDA 2003). WS has reviewed the alternatives analyzed but not in detail and determined the analyses in the EA are still appropriate for those alternatives considered.

XII. ANALYSIS

WS has reviewed the potential environmental impacts and the scope of analysis contained in the EA. The EA and the Decision/FONSI determined that activities conducted pursuant to and within the scope of analyses would not have significant impacts on the quality of the human environment. After review of the EA, the associated Decision/FONSI, and information contained in this summary report, WS has determined that the environmental impacts on the quality of the human environment from those activities conducted pursuant to the EA and its Decision/FONSI will continue to be insignificant and that no substantive changes in the analyses are necessary.

WS' activities in New York, based on the information found within this report, fall within the scope of analysis in the EA. No substantive changes have occurred in activities conducted or methods used since implementing the EA decision during the reporting period. Program activities have not changed from those described and analyzed in the EA. WS will continue to conduct deer damage management activities according to those program procedures, protection measures, and mitigation factors discussed in the EA (USDA 2003).

XIII. DECISION AND RATIONALE

I have carefully reviewed the EA, the comments received during the public involvement process for the pre-decisional EA, the 2003 Decision/FONSI, and the information provided in this summary and new Decision document. I find the proposed program to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues which

reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human environment are likely to occur from the proposed action, nor does the proposed action constitute a major federal action that would warrant the development of an EIS. Therefore, the analysis in the EA remains valid and does not warrant the completion of an EIS.

Based on the EA, the issues identified are best addressed by continuing Alternative 5 (Proposed Action/No Action) and applying the associated mitigation measures discussed in Chapter 3 of the EA. Alternative 5 successfully addresses (1) deer damage management using a combination of the most effective methods and does not adversely impact the environment, property, and/or non-target species, including T&E species; (2) it offers the greatest chance at maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of deer damage management activities, that affect the natural or human environment, or from the issuance of new environmental regulations.

The rationale for my decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, the best available science, and program activities conducted since the selected alternative was implemented. The foremost considerations are that: 1) deer damage management will only be conducted by WS at the request of landowners/managers, 2) management actions are consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this new Decision, the WS program in New York will continue to provide effective and practical technical assistance and direct management techniques that reduce damage.

The WS program in New York will implement the proposed action in compliance with all applicable standard operating procedures and minimization measures described in Chapter 3 of the EA. This new Decision will take effect upon the close of the public comment period after publication of a legal notice making the EA, the 2003 Decision/FONSI, and this Decision available to the public for review and comment if no substantive issues or alternatives are identified during the public comment period. New issues or alternatives raised after publication of public notices will be fully considered to determine whether the EA and this Decision should be revisited and, if appropriate, revised, or if a Notice of Intent to prepare an EIS should be issued.

FINDING OF NO SIGNIFICANT IMPACT

The analysis in the EA, the 2003 Decision/FONSI, and this summary report indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of this proposed action. I agree with this conclusion and therefore find that an EIS need not be prepared.

This determination is based on the following factors:

- White-tailed deer damage management as conducted by WS in the State of New York is not regional or national in scope.
- Based on the analysis documented in the EA, the impacts of the proposed action will not significantly affect public health or safety. Risks to the public from WS' methods were determined to be low in a formal risk assessment (USDA 1997).

- 3. The proposed action will not have a significant impact on unique characteristics such as park lands, wetlands, wild and scenic areas, or ecologically critical areas. Built-in mitigation measures that are part of WS' standard operating procedures and adherence to laws and regulations will further ensure that WS' activities do not harm the environment.
- 4. The effects on the quality of the human environment are not highly controversial. Although certain individuals may be opposed to managing damage caused by white-tailed deer, this action is not controversial in relation to size, nature, or effects.
- Mitigation measures adopted and/or described as part of the proposed action minimize risks to the
 public, prevent adverse affects on the human environment, and reduce uncertainty and risks.

 Effects of methods and activities, as proposed, are known and do not involve uncertain or unique
 risks.
- 6. The proposed action does not establish a precedent for future actions, including future white-tailed deer damage management that may be implemented or planned within the State.
- 7. The number of white-tailed deer that will be taken by WS annually is very small in comparison to regional and statewide populations. Adverse affects on other wildlife species and on wildlife habitat would be minimal. The EA and the 2003 Decision/FONSI discussed cumulative effects of WS' activities on target and non-target species' populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State.
- 8. This action will not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places and will not cause loss or destruction of significant scientific, cultural, or historic resources. WS' damage management activities would not disturb soils or any structures and, therefore, would not be considered a "federal undertaking" as defined by the National Historic Preservation Act.
- 9. WS determined that the proposed project would not adversely affect federally or state listed threatened or endangered species in New York.
- 10. The proposed action is consistent with local, state, and federal laws that provide for or restrict WS' wildlife damage management activities. Therefore, WS concludes that this project is in compliance with federal, state, and local laws for environmental protection

Charles S. Brown, Director-Eastern Region

USDA/APHIS/WS

Raleigh, North Carolina

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